Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An electronic speed control system for a farm machine comprising:

at least one left wheel and one right wheel installed on the farm machine ~~a farm machine~~, with first and second variable speed, reversible, hydraulic motors connected to and providing ~~proving~~ power to respective left and right wheels;

first and second variable output and reversible hydraulic pumps connected to respective first and second hydraulic motors and driven by an engine on board the farm machine, with each first and second hydraulic pump capable of being set to drive its connected motor forward or reverse or into neutral with no motion and of varying the motor speed in forward and reverse by varying the output of the respective first or second hydraulic pump;

first and second pump control devices connected to respective first and second hydraulic pumps to independently select between forward, reverse, and neutral pump settings and to vary the output of the first and second pumps in the forward and reverse settings;

a speed control device connected to both first and second pump control devices and capable of simultaneously varying the settings and outputs of both first and second pumps;

a speed control power apparatus connected to the speed control device and capable of moving the speed control device to vary the outputs of both first and second pumps;

a plurality of sensors located on the farm machine for establishing various operational parameters and generating signals indicative thereof;

a microprocessor interconnected with the speed control power apparatus and providing a signal to the speed control power apparatus to determine the motion imparted to the speed control device based upon a program of the microprocessor and the signals from the plurality of sensors that are interconnected with the microprocessor;

one of the plurality of sensors is a speed control position sensor comprised of a dual hall effect rotary position sensor interconnected with an operator controlled manual speed

control and with the microprocessor and sending a signal to the microprocessor indicating at what speed setting the manual speed control is set;

another of the plurality of sensors is an engine speed sensor comprised of a magnetic sensor interconnected with the engine and with the microprocessor and sending a signal to the microprocessor indicating at what rpm the engine is running; and

yet another of the plurality of sensors is a ground speed sensor comprised of a reluctance sensor on each wheel, each interconnected with the microprocessor and sending a signal to the microprocessor indicating the ground speed of the farm machine, whereby the program of the microprocessor will cause the ground speed of the farm machine to be reduced when the engine rpm decreases.

2. (original) The electronic speed control system of claim 1 wherein the operator controlled manual speed control is a pivoted lever.

3. (previously presented) The electronic speed control system of claim 2 wherein the speed control power apparatus is a hydraulic cylinder connected to and operated by a control valve connected to and receiving signals from the microprocessor.

4. (currently amended) The electronic speed control system of claim 3 wherein the pump control devices are control arms connected to the pumps and to the speed control device ~~rod~~.

5. (previously presented) The electronic speed control system of claim 4 wherein the speed control device is a rod connected between the pump control devices and the speed control power apparatus.

6-8. (cancelled)